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The author presents a historical review of American college and university institutional research. He defines educational research as "any thorough-going investigation of an educational problem," and states that institutional research in higher education "constitutes such an investigation of any topic concerning which a college or university or a group of them collects or seeks to collect data toward the end of improving operations."

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College Self-Study
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I. Two and a Half Centuries of Institutional Research

. . . . . W. H. Cowley

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Some of you are probably surprised at the title of this paper. In asking me to write it, Dr. Axt suggested that I review the last thirty years of American college and university institutional research; but he agreed to let me extend the period to a century and a quarter. After I got started organizing my notes and looking into the topic further, however, I regretted that I hadn't proposed twice that long because I found that I need to begin with the year 1701. I'll describe what happened in that year presently, but let me first explain my understanding of the term institutional research.

The adjective institutional requires no comment since obviously in the context of this conference it refers to a college or university. The noun research, however, needs attention. It has become one of the magic words of the twentieth century, and hence almost everyone seems to want to muscle in on its fabulous prestige. Even elementary school children use it to describe going on trips to museums and zoos, and the other day a salesman who came to our front door at home exploited it in his sales pitch. He said that he was researching our family need of a fuller line of kitchen and garden brushes. In response to my interested query about his use of the term, he observed that it gets his foot into more doors than any other gambit.

All prestige words take on multiple meanings as, for example, the word humanism. the concepts behind which one of my students is currently investigating. On the title page of his study, he tells me, he plans to reproduce an observation of the late Hans Zinsser which reads: "There are as many sects of humanism as there are Protestant churches." Or consider the term liberal education which, incidentally, is rapidly being outmoded by the recently coined locution "humanistic education." A few years ago I identified eight quite different meanings of "liberal education," and I'm sure that a more careful search will turn up at least as many more.

Perhaps you've noticed that I've just used the word "search." After wondering for some years about the difference between a search and a research, I once looked up the history of the two words to see if I could discover why we typically employ the latter word to designate

hunting for an answer to an intellectual problem. I found that English writers in the late sixteenth century took over the French word rechercher, and quite unexpectedly I also found that the first users of both the French and English versions of the word were literary scholars and not scientists. The word emerged before the beginning of extensive scientific experimentation and during the heyday of emphasis upon the purity of the translations of the recently repossessed works of classical authors. Thus the originators of the term prefixed the word search with re to accent the fact that they had searched again the original documents anteceding the books they were studying.

When philosophers, scientists, and others began to employ the word, however, the idea of searching again faded out. Thus in both French and English the prefix re came to signify the purposes behind searching again rather than that activity per se. The purposes of the literary scholars who coined the word were clearly thoroughness and carefulness, and so for a long period now the word research--to cite the Webster definition--signifies a careful search, studious inquiry, exhaustive investigation. Educational research, therefore, consists in any thorough-going investigation of an educational problem; and institutional research in higher education constitutes such an investigation of any topic concerning which a college or university or a group of them collects or seeks to collect data toward the end of improving operations. I have used this definition in the writing of this paper.

I wish that I could now move on to my assignment of reviewing the history of institutional research in American higher education, but I must first point out that some influential people do not accept the definition I've just given. By research they mean a specific kind of inquiry, namely, a scientific investigation. They hold that if a study isn't scientific, then it can't be called research. They also hold that if a study isn't quantitative, then it can't possibly be called scientific. In short, they maintain that if an educational investigation doesn't employ statistical concepts such as "the standard deviation of the mean," "Chi-Square," and "probable error," then it's not research.

I hoped when I began writing this paper that I'd have time within it to analyze this restricted definition, but the bulk of objective history to be covered precludes the possibility of exploring the concept behind it. I must, however, observe that the definition is of quite recent vintage, is propounded by individuals concerned with weighty but nonetheless circumscribed problems, and excludes the consideration of many questions of greater gravity. The statisticians have a vital role to play in educational research but not so vital, I think, as some of them imagine.

Those of you who have kept fresh your knowledge of American higher educational history recognize the date 1701 as the year of the founding of Yale. Ten Congregational clergymen of Connecticut got together that year and decided that for geographic and religious reasons they would establish a college in that colony. All but one of the ten were Harvard graduates, and so not unnaturally they sought advice from the Harvard people who gave allegiance to theological ideas consonant with their own. These included the President of Harvard, Increase Mather, and his prodigious son Cotton Mather who thus became the first educational consultants in American history. Both belonged to the conservative group at Harvard, the group then under severe criticism by the liberal group whose successors would lead Harvard into Unitarianism. The Mathers each wrote letters to what the founding Act issued by the General Court of the colony called the Yale "Undertakers." Probably the Mathers also conferred with some of them in Boston. Be that as it may, the founders solicited help in organizing the college they envisioned.

Their study also undoubtedly included a review of the organization of the Scottish universities and of the University of Dublin at which Increase Mather had been a student. I have not been able to find any direct evidence of such a study, but the fact that Yale followed Scottish precedents in establishing a single governing board strongly suggests it. The only two American colleges then in operation--Harvard and William and Mary--each had two governing boards; and since the Yale founders by-passed that arrangement and adopted the one-board plan, it seems to follow that they either had previous knowledge or made an investigation of Scottish methods of academic government. In any case, the Yale founders studied with some care the problem of how to organize their college; and although their research may have been rudimentary in comparison with, say, the Carnegie-sponsored investigation of American academic government currently being completed by John J. Corson, I have no qualms at all in naming it as the first piece of institutional research in American higher education.

An exhaustive audit of the early history of institutional research would almost certainly turn up a dozen or so other eighteenth century studies. I know of several, but I shall briefly describe only the three undertaken by Ezra Stiles who became president of Yale in 1778. Stiles--a Yale graduate and a former tutor there, a lawyer as well as a minister, a close friend of Benjamin Franklin's because of their common interest in scientific experimentation, and considered to be the most learned man of his time in New England--did his first study in 1763-64 and his second and third during the six-month's period it took to make up his mind about accepting the proffered Yale presidency.

He made his 1763-64 investigation in preparation for the founding of Rhode Island College which later changed its name to Brown University. Like the Yale study to which I've just referred, it had to do with

academic government. For some years Stiles had been pastor of the Second Congregational Church in Newport, Rhode Island; and when in the summer of 1763 an extraordinary 25-year-old Princeton graduate named James Manning arrived from Philadelphia commissioned to found a Baptist college under his presidency, he asked Stiles to help him design the college's plan of government. Just how much research Stiles and Manning did in drafting their recommendation, I've not been able to discover; but they probably did not a little because their proposal did not resemble the systems of academic government in effect at their alma maters, at Harvard, at the three other American colleges already established, or at any of the Scottish universities from one of which, incidentally, Stiles had an honorary degree. The details of their plan are not significant here, and I refer to it only because the circumstances surrounding its preparation and adoption indicate that Stiles had looked fairly carefully into methods of academic government at home and abroad.

His second study also related in part to academic government, this time to that of his alma mater which in the fall of 1777 invited him to become its president. He wasn't sure that he wanted the post, and so he made an extensive inquiry into the controversy then going on between the Connecticut Legislature and the Yale governing board and also into public opinion about Yale and its problems. He spent six months on the investigation, and concurrently he did his third study. Concerned with the Yale curriculum and entitled "Plan of a University," it appraised the medical courses already being offered at Pennsylvania, Harvard, and Columbia; and it mapped the developments in professional education at Yale which came along during later decades. Together with the 1753 curricular study of Provost William Smith of the College of Philadelphia (the University of Pennsylvania) and that made about the same time by President Samuel Johnson of King's College (Columbia), it constitutes one of the basic documents in the history of American college and university curriculums.

Leaping ahead half a century brings this necessarily impressionistic review to the first institutional self-survey. It occurred at Harvard and continued for several years in the mid-1820's. A number of vexatious circumstances led to its initiation including the assiduous proposals for curricular and instructional reform of Professor George Ticknor who had recently returned from four years of study in Europe, German in particular; the student uprising known as the Great Rebellion which led to the dismissal of 43 of the 70 members of the Class of 1823; and the demand of a number of professors for membership in the Harvard Corporation, the more powerful of the institution's two governing boards.

Concurrent professorial and student discontent clearly required ameliorative action, and sc a network of committees of the Corporation, the Board of Overseers, and professors and also of committees with joint memberships from the three groups set about a wide-ranging assessment of Harvard affairs. From their work issued a series of significant revisions including the complete rewriting of the statutes governing the college, the redefinition of the functions of the president, the creation of a new governing body called the Faculty of Harvard College, the establishment of instructional departments to replace the outmoded system under which the younger members of the teaching staff taught all subjects offered, the institution of a primitive kind of elective system, the sectioning of classes in the modern languages on the basis of ability, and the abandonment of the system of money fines for student misdemeanors.

Of course, no one called the work of examining Harvard's problems 135 years ago a self-survey, but the enterprise would be so designated today. If the committees knew little about educational research techniques and nothing at all about statistics, they did know Harvard. They also sensed the accelerated spirit of change just beginning to course exuberantly through the Western World, and thus they proposed changes which led to more far-reaching results than any present-day self-survey of which I know.

The Harvard committees of the 1820's, I've just remarked, knew nothing of statistics; but in 1839 the American Statistical Association got organized in Boston; and slowly elementary statistical ideas began to diffuse through the nation. In 1870, for example, the United States Government undertook its first well-grounded census; and four years earlier the first statistical study in American higher education seems to have been published, namely, an analysis of the enrollments of ten competing colleges. The author, Frederick A. P. Barnard, had become president of Columbia two years earlier and had discovered that Harvard, Yale, and other colleges were matriculating more freshmen from New York City than Columbia. He therefore set out to discover the facts, and he presented them in a series of tables to the Columbia Board of Trustees as part of his annual report for 1866 and also in a pamphlet intended for general distribution. Four years later he did a follow-up study, and at that time he also made the first careful listing of the colleges of the country and the essential numerical facts about them.

Barnard used only commonplace arithmetical methods in his studies because the advanced statistical concepts of today had not yet been developed and wouldn't begin to impregnate education or any other subject until after the appearance of such books as Pearson's Grammar of Science in 1899 and Bowley's Elements of Statistics in 1902. The fact needs recalling that the multiplex statistical enterprise of today has issued from a number of historic sources and from two in particular: first, from political scientists who coined the term perhaps as early as the sixteenth century and who employed it to denominate their collections of enumerative facts about civil states and their subdivisions, and second, from mathematicians like Laplace who originated

collections of enumerative facts about civil states and their subdivisions, and second, from mathematicians like Laplace who originated and fostered the theory of probability. These two streams did not join until Pearson's time, but meanwhile many individuals who knew about the work of the political statisticians began to use their simple arithmetical devices.

Among educators these included not only Barnard but also President Charles W. Eliot of Harvard who took office in 1869 and whose annual reports from the beginning of his 40 years in office abound with statistical tables. They record many varieties of operational facts, but they also reported the studies of Harvard problems which he and his associates undertook. On one issue close to his heart, for example,--the reduction of the Harvard undergraduate program from four years to three--he published several score of tables resulting from his investigations. Incidentally, they did not lead to the result he desired; but they and his other studies and reports seem to me to justify the statement that continuous rather than spasmodic institutional research began at Harvard under Eliot's direction.

An eminent political scientist, A. Lawrence Lowell, succeeded Eliot in 1909; and it seems probable that he became president of Harvard largely because of his institutional research activities. These began in 1902 when he became a member of the Committee on Improving Instruction in Harvard College. This committee, one of the most consequential in the history of American higher education, came into existence because of the growing conviction in the academic world and in the public mind that college students were generally lazy, luxury-loving, and scandalously immoral. I believe the study it undertook to be the first factual investigation of instructional methods conducted by an American college or university. Among other things it inquired into the amount of time Harvard undergraduates spent on their courses and discovered it to be an average of three and a half hours a week per course or about half the time that faculty members considered minimal. It also made the first recorded canvass of class size. Further, it reviewed the system of working for honors and set the stage for the spectacularly successful honors program which Lowell inaugurated after he became president. Finally, its facts and its succinct and skillful presentation of them prepared the way for the soon-to-be-accomplished abandonment of Eliot's widely advertised free-election system.

I have described the work of the Committee on the Improving of Instruction in Harvard College not only because it seems to me to be a monumental study but also because I have never seen it cited in the literature of higher educational research. Nor have I seen references to Lowell's own investigations, the most significant of which had to do with the relationship of undergraduate scholarship to career success. He published one of these studies (College Rank and Distinction in Life) in 1903 and another (College Studies and the Professional School) in 1911, that is, somewhat before and just after he became president. They had enormous influence in helping change the attitudes of Harvard

undergraduates toward serious work. Thus when Lowell took office, only a smattering of students took honors at graduation; but their proportions increased to 16.8 per cent six years later, to 37.2 per cent in 1933, and to 42.5 per cent two years after he retired.

Neither Eliot nor Lowell established, I believe, a bureau or office of institutional research; and none has since been created. Nonetheless considerable such research has been carried on and published there. I shall have more to say later about how this has been done. For the nonce I'd like to quote a statement by Lowell and another by his successor, James Bryant Conant, urging the importance of educational investigation. Said Lowell in a 1916 address on "Scientific Study of Education" at Carlton College:

> Education is the last of man's creations to follow the current of the age. At present we know less about it scientifically than about almost any other subject... We ought to pass from the stage of theory, however plausible, to that of scientific knowledge...We should [not] remain in a state of educational chaos for lack of positive knowledge obtained by the methods of modern science.

Said Conant in his annual report for 1937-38:

> There can be no question today that the study of education as a social process--quite apart from the training of teachers--is as important as the study of law or of business administration.

Thus far I have referred only to developments in the eastern part of the country, and it's high time that those of other sections be considered. Beyond all comparison with anyone in the Middle West, William Rainey Harper, the titanic first president of the University of Chicago, promoted research of all kinds including institutional research. Knowing that he would be invited to be its president even though he had just turned 34 when the University received its charter in 1890, Harper began a comprehensive exploration of higher education at home and abroad. He filled a series of red notebooks now carefully guarded in the archives of the institution, and both his data and his predilections impelled him to steer Chicago into a program in which research would be the loftiest of functions. This meant among other things that promotions in rank and salary would depend, as the contract that Harper required each faculty member to sign, primarily upon "the merits of the research" they "carried out." It also meant, in the words of one of the six college and university presidents who quit their jobs to become members of Chicago's original professorial staff, that "not the least among the problems which the University should

investigate was itself." Thus Harper initiated a score or more of history-making educational experiments and also, in season and out, proclaimed the need of educational research.

In 1899, for example, he delivered an address before the Regents of the State of New York entitled "Waste in Education," and among other things proposed that "there should be a diagnosis of each student, in order to discover his capacities, his tastes, his tendencies, his weaknesses, and his defects; and upon the basis of such a diagnosis his course of study should be arranged." Four months later at Brown University he detailed what he meant by "a diagnosis of each student" in a paper entitled "The Scientific Study of the Student." It is a high landmark in the history of student services in American higher education, and I call attention to it to show the range of Harper's vision of educational research.

His vision probably included the whole gamut of educational topics, but he died a little more than thirteen years after the University opened and hence of necessity gave his attention chiefly to promoting his innovations and the general welfare of the institution rather than to conducting or directing educational and administrative studies. He did, however, see that all operational facts about the new university got recorded as witness the dozens upon dozens of statistical tables included in his Decennial Report published in 1903 in a volume of almost six hundred pages.

At this point I must stop and repeat and then comment upon the definition of institutional research proposed in an early paragraph. It reads: institutional research in higher education constitutes any thorough-going investigation of any topic concerning which a college or university or a group of them collects or seeks to collect data toward the end of improving operations. Two words in this definition need now to be enlarged upon, the words "any topic."

Thus far I have briefly described or alluded to studies on eight topics: academic government, curriculum, the length of the college course, instructional methods, class size, student discipline, enrollments, and the characteristics of students. The topics listed for discussion at this institute include three of these--class size, enrollments, and student characteristics--plus five others: teaching loads and instructional costs, budgetary analysis, faculty research, space utilization, and campus planning. This makes a total of thirteen areas of inquiry already named as belonging within the boundaries of institutional research, and beyond question as many more will be mentioned during the days ahead. In fact, I plan to deal with several additional ones this evening, and hence you'll probably agree that some sort of system of classification should be employed to keep all of us from getting dizzy as the talk turns from one topic to the onrushing next one. This

wouldn't be necessary, of course, if institutional research should by agreement be limited to a circumscribed number of topics; but the definition I've suggested includes any topic which a college or university investigates with a view to its improvement. The definition takes in a huge territory which somehow needs to be ordered by means of a system of classification.

For a long period now my chief interest has been the task of formulating such a system, and without elaboration I submit it to you and then use it throughout the rest of this paper. It rests upon two postulates: first, that colleges and universities can best be comprehended by identifying their activities or functions, and second that these can be categorized under three main headings: (1) raison d'etre functions, (2) auxiliary functions, and (3) self-continuity functions.

The raison d'etre functions of higher educational institutions seem to me to be only two--teaching students and investigating the nature of the world and man, that is, education and research.

To perform these sovereign functions or to meet social needs, however, colleges and universities undertake a number of auxiliary functions such as maintaining collections of books and works of art; providing for the physical and social well-being of students; conferring degrees and certificates upon those who have satisfactorily completed courses of instruction; honoring distinguished people by means of honorary degrees, and other such supplemental activities.

Finally come the self-continuity functions, the activities in which colleges and universities engage for the purpose of continuing in operation. These include the innumerable things that people generally call administration--raising money for building, and maintaining the academic plant; searching for and nurturing various kinds of workers from presidents to plumbers; recruiting students; setting up schedules of course offerings; purchasing supplies and equipment; and so on through the long list of jobs that must be done if the institution is to survive, never mind to thrive.

I have reported a number of studies made in the eighteenth and nineteenth centuries; but with the help of this proffered tripartite classification of college and university functions the history of institutional research can, it seems to me, be plotted more intelligibly. Consider, for example, researches in the self-continuity category. The three topics primarily studied before the beginning of the twentieth century seem to have been academic government, student enrollments, and the structuring of educational institutions typified by Eliot's inquiries concerning the length of the undergraduate course. The investigations made on these subjects before about 1900, however, can fairly, I think, be characterized as elementary. The leap forward

came with the maturation of the concept of efficiency which occurred at the turn of the century and which led directly to the widely-discussed University of Wisconsin survey undertaken in 1913-15. Before reviewing that study, however, the rise of the concept of efficiency needs brief consideration.

As far as I've been able to discover, no one has yet told the story of the emergence and spread of the concept of educational efficiency even though it appears to have colored the thinking of almost all important educational writers after 1899, the year that John Dewey and William Rainey Harper each wrote a paper entitled "Waste in Education." My own occasional and quite spotty ferretings into the history of the idea have led me to a number of books and articles on efficiency published before the First World War in both the self-continuity and raison d'etre functions. By all odds the most important of these in the self-continuity category was a volume sponsored by the Carnegie Foundation and published in 1910 entitled Industrial and Academic Efficiency. It reported a study made by a young man named Morris Llewellyn Cooke, a disciple of Frederick W. Taylor who originated efficiency engineering. Its subject matter constituted "the cost and the output both in teaching and research in the departments of physics" in six large universities and two small colleges.

Unhappily Cooke's research seems to have been almost forgotten since I don't recall ever having seen it listed in bibliographies. Apparently, however, it had immediate influence at a number of universities, the University of Wisconsin among them. At all events, because of legislative criticism of high educational costs, the University of Wisconsin in 1913 employed one William Harvey Allen to study the "efficiency" of its "teaching and educational methods," including class size, instructional costs, and related administrative problems. Allen, a Ph.D. in political science from the University of Pennsylvania and a member of the staff of the New York Bureau of Municipal Research, had previously written a book on Efficient Democracy and had made a survey of the rural schools of the state. He made such a fiasco of the Wisconsin study, however, that criticism of his procedures came from all parts of the country. Dean Elwood P. Cubberley here at Stanford, for instance, called it "an outrageous investigation," and President Eliot of Harvard declared Allen to be "totally incompetent... both as to knowledge and as to judgment," (in Merle Curti, The University of Wisconsin: A History).

It seems highly probable that Allen's abortive work at Wisconsin considerably retarded the investigation of college and university administrative problems. So also did the First World War and the attacks on administration and administrators led by James McKeen Cattell in his 1913 book University Control, Thorstein Veblen's The Higher Learning in America which appeared in 1918, and Upton Sinclair's The Goose-Step published in 1923. A few sentences from Veblen's still influential book (it has been reissued twice, the last time just two years ago) show the contempt in which many professors held--and some

still hold--the concept of academic efficiency even in the self-continuity functions:

> Men dilate on the high necessity of a businesslike organization and control of the university, its equipment, personnel and routine. What is had in mind in this insistence on an efficient system is that these corporations of learning shall set their affairs in order after the pattern of a well-conducted business concern. In this view the university is conceived as a business house dealing in merchantable knowledge, placed under the governing hand of a captain of erudition, whose office is to turn the means in hand to account in the largest feasible output.

He castigated the concept of efficiency, however, because under it "the faculty is conceived as a body of employees, hired to render certain services and turn out certain scheduled vendible results." It also, he avowed, "puts a premium on mediocrity and perfunctory work, and brings academic life to revolve about the office of the Keeper of the Tape and Sealing Wax."

As every administrator knows, Veblen's point of view continues to have adherents today, but their ratio among faculty members seems to have diminished substantially. Many factors have contributed to the change including the participation during both world wars and the intervening depression of large numbers of professors in the work of governmental and industrial organizations; the proportional increase of faculty members teaching engineering, business management, and the applied social sciences; and the general acceptance by the American people of the concept of efficiency at least in the self-continuity functions of social institutions.

The change, however, has been shockingly slow in affecting operational improvements in most colleges and universities. Not a single institution of which I know, for example, has yet established a unit with more than a very limited commission to investigate administrative practices--that is, its self-continuity functions--toward the end of rationalizing them and cutting costs. Many disparate studies and improvements have been made in alert institutions, but the concept of studying administration continuously has not made significant progress. Further, no organization exists in higher education parallel to the American Management Association; the United States Office of Education supplies higher educational administrators with few aids comparable to those which the Unived States Department of Commerce provides business executives; and colleges and universities can subscribe to practically none of the informational and other services which have been available to business organizations for decades. Finally, higher educational administrative research lags because by and large we follow the sink-or-swim method of training administrators be they presidents, deans, business officers, or heads of academic departments. In tolerating this

method and also the less-used apprenticeship system, we fail to attend to the fact that recognition of the importance of research does not come naturally to most people and must be inculcated by specific training.

The emergence fifty to sixty years ago of the concept of efficiency had an earlier and apparently greater impact upon research in the raison d'etre and auxiliary functions than upon self-continuity investigations. The Committee on the Improvement of Instruction in Harvard College to which I've already referred and which started its work in 1902, set about, for example, to acquire "accurate and detailed knowledge of the methods and the efficiency of instruction"; and in 1908 President Henry Churchill King of Oberlin appointed a faculty committee, called the Committee on Tests of College Efficiency, to make an exhaustive self-survey of the college. Meanwhile Woodrow Wilson had applauded the idea of efficiency in his inaugural address at Princeton in 1902, and in 1904 Eliot at Harvard gave an address entitled "Education for Efficiency" which he later included in a book by the same name.

The term efficiency, however, soon largely gave way in educational as distinguished from self-continuity investigations to the terms the science of education and the scientific movement in education; and under banners bearing these ambitious legends psychologists and educationists began to grapple with a vast span of instructional, curricular, and related problems. Most of them concentrated their effort on the elementary and secondary schools, but a number of circumstances shifted part or all of the interest of some of them to higher education. These circumstances included the development of the Army Alpha and other intelligence tests during and immediately after the first war with Germany, the initiative and generous financial support of the two Carnegie and of other philanthropic foundations, and the appointment of a number of educationists and psychologists to leading university presidencies.

Since unquestionably everyone in this audience knows about the evolution of college-level intelligence testing, I need not linger on it and can move on to the other two factors just named. Consider first the stimulation and funds supplied by the foundations. Henry Smith Pritchett, President of the Carnegie Foundation for the Advancement of Teaching from its founding in 1906 until 1930, and Frederick P. Keppel, President of the Carnegie Corporation from 1923 until 1941, are seldom mentioned in reviews of higher educational research; but should a comprehensive history of it ever be written, they would each rate a long and praiseful chapter because they initiated and supplied the funds for more future-shaping educational investigations than, I think it safe to say, any two other men before or since. Pritchett, for example, proposed and then allocated the money for the Cooke study of

industrial and academic efficiency to which I've already made reference; and he also set in motion Flexner's revolutionary study of medical education published in 1910 as well as a score of others which, though less spectacular, had definitive influence on the improvement of higher education. In his turn, Keppel persuaded a group of modern language professors to undertake the famous Modern Language Study which appeared during the early thirties, and--to abbreviate a long list--he also projected extraordinarily influential studies of music and the fine arts. Meanwhile the General Education Board, among other inquiries, had activated the Classical Investigation published in 1924, and the Commonwealth Fund had sponsored a score of studies including Fred J. Kelly's inquiry of the same year into the status, problems, and prospects of the American liberal arts college.

The foundations seem not to have frequently given funds to individual colleges and universities for strictly institutional studies, but the inter-institutional or national investigations that they conceived and patronized encouraged interested presidents to promote educational and administrative research on their own. Time permits me to attend--and only briefly--to the activities of three such presidents, two of them educationists and one a psychologist: Lotus D. Coffman of the University of Minnesota, Edward C. Elliott of Purdue, and James R. Angell of Yale.

Coffman, in my mind the outstanding state university president of his time, had been successively a school principal, professor of education, and dean of the College of Education at the University of Minnesota before becoming president in 1920. In his report to the Minnesota Board of Regents for 1925-26 he devoted twenty-six pages to the subject of investigating the educational activities of the University and to describing the work of the University Committee on Educational Research which he had appointed the previous year. Meanwhile he gave his blessing to the researches in admissions and student scholarship already begun by Dean John B. Johnston of the College of Letters and Science and those of Professor Donald G. Patterson in educational and vocational counseling. Minnesota has been formally investigating its raison d'etre and auxiliary functions longer, I think, than any institution other than the University of Illinois whose Bureau of Institutional Research came upon the scene in 1918. I shall say more about it in just a few moments. Incidentally, Minnesota a decade ago replaced the committee which Coffman established by a unit with the same name as that at Illinois.

President Elliott of Purdue, a close friend of President Coffman's, followed his leadership sixteen months later by organizing the Division of Educational Reference under his immediate supervision to "study the instructional activities of the University, to serve as educational adviser to both faculty and administrative officers, and to publish the results of its labors in the form of bulletins." It has been in operation ever since, and the last of its bulletins in its series of Studies in Higher Education that I've seen bears the number 87 and the date of January, 1958.

President James R. Angell of Yale, the psychologist among the trio of university presidents whose advancement of institutional research I've selected for description, had directed Harry Dexter Kitson's doctoral dissertation on "The Scientific Study of the College Student" while head of the psychology department of the University of Chicago. He had also backed psychological and educational studies during his brief tenure as president of the Carnegie Corporation; and six years after going to Yale in 1921, he created the Department of Personnel Study under the direction of A. B. Crawford. It still functions, and Crawford's significant studies of intellectual incentives, occupational choice, and predicting student achievement have a permanent place in the literature of student clientele research.

Three paragraphs back I referred to the Bureau of Institutional Research at the University of Illinois as probably the first such unit established in any American university. Further exploration may prove this to be an incorrect statement, but in any case W. W. Charters, then Dean of the College of Education there, organized it in 1918 as a service bureau for the central administration. It is still in operation doing studies which a leading professor in 1941--William A. Oldfather, head of the Department of Classics--described as "invaluable" to faculty committees as well as to the President's Office.

Two other Middle Western institutional research structures organized during the twenties also should be cited--the Bureau of Educational Research at Ohio State University and that headed at the University of Michigan by Clarence S. Yoakum. The first of these had been set in operation in 1918 to make school surveys and otherwise to service the schools of Ohio; but when W. W. Charters became its director in 1928, he added two new divisions concerned with institutional research. Both began their work in 1929 with Ralph W. Tyler as head of the Division of Achievement Tests and with me in the parallel post in student personnel research. Tyler worked with instructional departments--especially with the Departments of Botany and Zoology where he made conspicuously significant studies--and I did a few things in my area but chiefly gave my time to doing a wide range of chores for the President and various deans, most of them administrative rather than investigatory. The Bureau still flourishes, but it seems to do rather less institutional research than during the Charters' directorship which ended in 1942.

During this period interesting things were also happening at the University of Michigan where in 1927 Clarence S. Yoakum became director of the newly-established Bureau of University Research. President A. G. Ruthven when he took office in 1929 found Yoakum's studies and personal counsel so valuable that the next year he appointed him Vice President and changed the name of his unit to the Office of Educational Investigations. Yoakum's research waned, however, when in 1935 he added to his duties the deanship of the Graduate School. Thus upon Yoakum's retirement in 1945, the Office of Educational Investigations closed.

Since my direct concern with institutional research ended about the time that Yoakum retired and since this already-too-long paper must be brought to an end, I shall not attempt to review the post-war period. This will probably disappoint Dr. Axt because he wanted me to emphasize the past thirty years, and here I am skipping over the last half of the period. I do want, however, to comment about it briefly and also to make an observation or two about possible plans for the future.

That there have been interesting developments since the end of the Second World War, few will deny; but may I say candidly as a former insider who therefore has a warm interest in institutional research that they do not seem to me to add up to anything approaching a formidable advance. A few new bureaus of institutional research have been established, three regional organizations including WICHE have been organized, and perhaps a somewhat although not impressive proportion of college and university presidents see the need of being supplied with more and better data. The progress made since the upsurge of dynamic interest which animated such presidents as Coffman, Elliott, and Angell and such bureau directors as Charters and Yoakum appears to me, however, to have considerably diminished.

Further, the achievements of institutional research bureaus per se seem not to have been especially noteworthy. What can research bureau people, for example, list for administrators and faculty people as their accomplishments during the recent past? I may be wrong in believing that the list would be short and not especially imposing; but assuming that I am right, what should and can be done about promoting the institutional research enterprise in the broad, that is, whether done by bureaus, by individuals, or by faculty committees? Since I consider it to be within the province of the historian to suggest for the present and the future what the past has illuminated, I conclude by submitting a single but ramified suggestion on the question.

To begin with, someone needs to state the case for institutional research more convincingly than it seems yet to have been stated. Indeed, I know of no adequate address, article, or book to which one might refer a president or faculty member whose interest in it he might want to arouse. It would now be necessary to indicate paragraphs and short sections of several score of publications, and I doubt that many would take the time to run them down for reading. The job of collating the best statements and of distilling them into a new, relatively short, and cogent document will in my judgment need to be done before institutional research will be widely recognized as essential or even important. The historical review attempted in this paper, may I suggest, might help in the location of passages that would be helpful in the writing of the proposed conspectus.

But who will write it? The job requires skills that research people do not usually have in sufficient abundance. I mean the rhetorical

skills that by and large those concerned with detailed facts and their minute accuracy do not cultivate. That a few individuals with the necessary abilities exist among institutional researchers, however, seems probable; but they need to be located; and one of them needs to be enticed into undertaking the important task of being the advocate of your enterprise.

Such a proposal raises the question of who will take responsibility for finding such gifted writers and persuading one of them to take on the assignment. The answer seems to me to be that no one will go to that trouble except as a member of an organized group established to advance institutional research in higher education. As far as I know, no such group has yet been projected, and I believe with conviction that you urgently need one for mutual assistance and for promoting your field of interest. It's an historic fact that few undertakings in the academic world--and, indeed, generally--make noteworthy progress until after those concerned with it become associated in order to learn from one another, to undertake common projects, and to persuade those in seats of power to give heed to the immediate and potential values of their work. This has been the situation in every academic discipline from anthropology to zoology, but those concerned with higher education as a subject of study--be they professors of higher education like me or institutional research people like you--have not put this fact of history to work in their behalf.

During the writing of this paper I have made a list of some of the activities in which the proposed association or society of institutional research people might engage besides initiating and publishing the exposition of the crucial importance of their activities which I have proposed. I've decided, however, that this paper has already covered too many pages and, moreover, that it would be more apropos on an occasion especially arranged for an assessment of the field as a whole rather than, as at this institute, for the discussions of unitary problems. I therefore return you from this protracted but much to kaleidoscopic trip through the past to the insistent and challenging present. May your discussions this week of the scheduled problems be profitable and, perhaps, made at least a bit more luminous because of my effort tonight to put them in historical perspective.